

REMARKS

Claims 1-23, 116 and 120-127 are pending in this application.

Claim 127 is rejected under 35 U.S.C. § 112.

Claims 1, 4-7, 10-23 and 121-124 are rejected under 35 U.S.C. § 102(e).

Claims 2-3, 8-9, 116, 120 and 125-127 are rejected under 35 U.S.C. § 103(a).

Report of Telephonic Interview

On or about July 5, we spoke with Examiner Van Doren and invited her to withdraw finality of this rejection. We did not have our papers in hand, because it was an office holiday. We agreed to talk again about whether finality would be withdrawn, but did not.

Finality is Inappropriate

The Examiner relies on several new references (Roden, Kimbrow, Koloszych and Lucas) on FOA p.24, which bars the Examiner from imposing finality. Reliance on the new references was not necessitated by any amendments, only by a challenge to a claim of "official notice." Therefore, finality is inappropriate. Applicants are entitled to respond to the new references before finality is imposed. MPEP § 706.07(a), at 700-82 (Rev. 5, Aug. 2006).

Moreover, in the last three office actions, we have tried in different ways to present a position, which the Examiner has not yet accurately summarized and professes not to understand. In our last paper (filed December 29, 2006) our main lead-off statement of position at pp.16-17 grouped together claims 1 and 121-124 and tied them to claims 120 and 125. The Examiner's response (copied from an earlier office action with an added paragraph break) mentions only claim 1. The cut-and-paste passage was unresponsive.

From the September 27, 2006 office action:

As to applicant's discussion that a presentation demand type relates to a mathematical treatment of forecast demand, which is irrespective of the shelves or type of fixtures used, Examiner is unclear how this statement specifically relates to the recited language in claim 1. Further, Landvater does calculate a sales forecast and uses the forecast and the presentation configuration to determine needed stock. Further, Examiner is unclear as to what is meant by the applicant's arguments regarding six or even two alternative treatments or applicant's discussion

Cut-and-pasted into the April 3, 2007 office action:

As to applicant's discussion that a presentation demand type relates to a mathematical treatment of forecast demand, which is irrespective of the shelves or type of fixtures used, Examiner is unclear how this statement specifically relates to the recited language in claim 1.

Further, Landvater does calculate a sales forecast and uses the forecast and the presentation configuration to determine needed stock. Further, Examiner is unclear as to what is meant by the applicant's arguments regarding six or even two alternative treatments or applicant's

Finality is inappropriate when the Examiner misses responding to our lead position, explained in two pages of detail. After we have tried three (now four) times to explain our position, if the Examiner still finds it unclear, it would be productive for the Examiner to call and work through by telephone what we cannot seem to accomplish by correspondence.

Applicants have submitted this response with an RCE, notwithstanding the foregoing objection to the handling of our last response. We hope for a more complete response this time.

Rejection Under 35 U.S.C. § 112 of Claim 127

The Examiner rejects **claim 127** under 35 U.S.C. § 112 as being indefinite for failing to particularly point out and distinctly claim the subject matter.

We respectfully disagree with the Examiner regarding the words used in the claim. A definite article is used in line four of claim 127, with an antecedent basis in line 2 that does not have a definite article.

Without narrowing or changing the meaning of the claim, we have added an indefinite article in line 2, by amendment.

Applicants respectfully submit that the rejection of claim 127 under § 112 should be withdrawn.

Rejection Under 35 U.S.C. § 102(e) of Claims 1, 4-7 and 10-23

The Examiner rejects **claims 1, 4-7 and 10-23** under 35 U.S.C. § 102(e) as anticipated by Landvater (U.S. 6,609,101).

Applicants respectfully request a response to the following, previously submitted statement of our position. If the Examiner does not understand our position, we respectfully request a telephonic interview and opportunity to authorize an Examiner's Amendment before she formulates her response.

In the following discussion, we will use the form [#1], etc. to identify what the Examiner summarized in the final office action on page 17-24 as our argument (1), etc. Using this labelling convention, we hope that the differences between the arguments we intended to make and the summaries to which the Examiner responded will be apparent. Tracking from one document to the next should help us point out the differences and distinctions between the cited references and the claims.

Claim 1

[#1] In our prior response, it was our position that the Examiner's summary was mistaken. The claim limitation added in July 2006 was a presentation demand type that selects one of a plurality of alternative treatments of presentation demand. We have now refined the limitation to a presentation demand type selector that selects one of a plurality of alternative extents to which the good can be sold out of the presentation quantity between the start date and the stop date. Examples of alternative mathematical treatments, which correspond to different extents of selling out of a display, are found in claims 120-125, which now depend from claim 126. These examples of presentation demand types are found on pp. 4-5 and 14-15 of the application.

Landvater teaches one treatment of the extent to which goods can be sold out of the presentation quantity: an increased safety stock. Landvater does not teach six alternative logics that result in different levels of selling merchandise out of the displays. Landvater Figures 14-15 illustrate the logic in replenishment system 200 for converting shelf configuration into safety stock level and for updating safety stock requirements. See, 14:59-15:25. Only one logic is suggested ("calculation of time-phased safety stock levels", col. 14, lines 25-27), without any alternatives. As claims 120-126 present six logics or mathematical treatments that result in different extents of selling merchandise out of presentation quantity and Landvater presents only one, at least five of our treatments cannot be rejected under §102(e) based on Landvater.

The Examiner argues (FOA at 18) that "Landvater discloses multiple configurations for products on shelves and on display at a retail store, these multiple configurations being alternative ways to handle presentation requirements." Clearly, this is not responsive either to the claim wording or to the position restated above. Nor is it a faithful characterization of Landvater's teaching, as discussed below in the context of claim 127.

The Examiner goes on (FOA at 18) to say that she does not understand our discussion, as she summarizes it. To us, that means that the summary remains flawed. We amended the claim and then explained what the words of the amendment meant, with reference to the specification. The added claim limitations are best understood in the context of the application pp. 4-5 and 14-15 and the added claims 120-125, which set forth alternative mathematical formulas that can be applied to presentation demand types. The Examiner is bound to give some weight towards patentability to the added claim limitations in the context of added claims. The Examiner has not yet given weight to the added limitations or dependent claims.

The closest that the Examiner comes to responding to [#1] is in line 6 of paragraph 2 on page 18, where she equates the presentation configuration to a type, using the parenthetical "(or type)". As the claim has been amended, one cannot equate a "shelf configuration", in Landvater, to a presentation demand type selector that selects one of a plurality of extents to which the good can be sold out of the presentation quantity between the start date and the stop date. Again, Landvater teaches one treatment mathematical treatment that produces just one extent of selling out of the

display, that being a time-phased safety stock level, which triggers shipments if on-hand inventory drops below the safety stock on any day of the simulation. Col. 14:8-9 & cols. 14-15.

To justify withdrawal of the section 102(e) rejection, we need only point out one difference between Landvater and the claims. For claim 1, we have pointed out several differences. Therefore, the rejection should be withdrawn.

Claims 4-7 and 10-15

Claims 4-7 and 10-15 should be allowable over Landvater for at least the same reason as the claims from which they depend. (The Examiner's designation of claims 8-9 as rejected under § 102(e) on FOA p. 4 is mistaken, as the rationale addresses only claims 6-7 and the actual rejection of claims 8-9 appears on FOA p. 9.)

Claims 16-18

Claims 16-18, as amended in our prior response, include the limitations:

wherein the additional analysis programs report aggregated groups of goods in individual selling locations.

wherein the additional analysis programs report aggregated individual goods in groups of selling locations.

wherein the additional analysis programs report aggregated groups of goods in groups of selling locations.

In each of the claims, the general "operate on" has been replaced with "report aggregated".

[#3] The Examiner pointed out that "operates on" is very general. We amended the claims in July 2006 to be more specific.

The Examiner missed the amendment in her rejection on FOA p. 5, casting her cut-and-paste rejection in the words of the old claims, instead of the amended claims. Similarly, in FOA p. 19, the Examiner misquotes the claim wording.

Examination of the claims as previously amended is respectfully requested.

Claims 19-23

Claims 19-23 should be allowable over Landvater for at least the same reason as the claims from which they depend.

Applicants respectfully submit that claims 1, 4-7 and 10-23 should be allowable over Landvater.

Rejection Under 35 U.S.C. § 103(a) of Claims 126-127

The Examiner rejects **claims 126-127** under 35 U.S.C. § 103(a) as unpatentable over Huang et al. (U.S. 6,151,582) in view of Landvater. These claims were added in our last response.

Claim 126

Claim 126, as amended, includes limitations that are reproduced below.

The Examiner's presentation is a bit difficult to follow, because first she says that Huang includes everything and then acknowledges that Huang teaches virtually none of the claimed elements. *Compare*, FOA p. 13 with p. 14. We return to this below.

Preliminarily, it is worth characterizing Huang. Huang discloses an agile supply management chain adapted to manufacturing, not retailing. Because demand for manufactured goods drives vendor managed replenishment (VMR) of distribution centers, Huang mentions stores in cols. 68-71. These columns do a much better job of explaining how Huang avoids using store-specific data than the Examiner-cited passages. In cols. 68-71, Huang teaches away from using store-specific data three times and never suggests using store-specific data. In particular, Huang says, "Note that we do not require the data ... which represents standard deviation of demands at individual stores." Col. 69, lines 41-43. In addition, "The stock-out probability is defined as the probability of shortage in at least one of the stores [not any particular store] replenished by the DC." Col. 70, lines 50-52. Similarly, "Lead-times from each Plant to each DC and (an average) from each DC to its Stores" is an input to the vendor managed replenishment contract setup. Col. 71, lines 33-34. Teaching away from using store-specific data is not surprising for this manufacturing supply chain application, as the manufacturer will have limited access to and little interest in the store level operations of retailers.

The Examiner's form of argument is first to assert that every limitation of the claim is met by Huang (FOA at 13), then to contradict herself by admitting at least some of what Huang lacks. (FOA at 14) One reading the Examiner's remarks at pages 13-14 might miss how the brief admission of what is lacking in Huang completely undermines the detailed assertion that virtually everything appears in Huang. The reproduction

below uses double strike through to indicate what the Examiner acknowledges is missing from Huang and single strike through to indicate what else is missing.

A computer-implemented method of generating reports from simulated unit inventory and unit sales on a bottom-up per location basis for a multitude of items at a plurality of locations, including:

modeling with a presentation demand calendar, which is a data structure stored in computer readable memory, a plurality of retail presentation events having presentation demand types that have differing impacts on presentation quantity requirements,

wherein a presentation event data tuple for a retail presentation event in the presentation demand calendar includes at least

a good identifier for a good,

a selling location identifier for a selling location,

a presentation demand type selector, and

at least one presentation quantity associated with a start date and a stop date for the retail presentation event, the presentation quantity representing a quantity of the good used in a retail display fixture at the selling location;

eliciting from a retail manager a setting for the presentation demand type selector for the retail presentation event, the setting representing one of a plurality of extents to which the good can be sold out of the presentation quantity between the start date and the stop date;

forecasting unit inventory and unit sales at a per item, per location level using the presentation demand type selector, in combination with other data in the presentation event data tuple, to satisfy presentation quantity requirements during the presentation event; and

generating, from results of the forecasting using the presentation demand calendar consistently across analytical tools, analytical reports that support retailing activities.

The limitations not found in Huang et al. cannot be supplied by Landvater.

Most of the limitations that we have crossed out are acknowledged (FOA p. 14) as missing from Huang. The lack of simulation should also be acknowledged, because Huang does not describe simulation -- Huang teaches away from retail level simulation, as described above, in favor of a computationally less demanding approach. Much more is crossed out than remains, even though Huang is a 132-page reference, belying the Examiner's assertions regarding Huang. (FOA at 13)

Changing Huang from the forecasting approach that it discloses into a store-level simulation engine would ignore Huang's teaching away from use of store-level data, as presented above, and would change Huang's principle of operation, both of which defeat a section 103 rejection. Combining the references would improperly modify the primary reference Huang's principle of operation. MPEP § 2143.01 explains:

THE PROPOSED MODIFICATION CANNOT CHANGE THE PRINCIPLE OF OPERATION OF A REFERENCE

If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959) (Claims were directed to an oil seal comprising a bore engaging portion with outwardly biased resilient spring fingers inserted in a resilient sealing member. The primary reference relied upon in a rejection based on a combination of references disclosed an oil seal wherein the bore engaging portion was reinforced by a cylindrical sheet metal casing. Patentee taught the device required rigidity for operation, whereas the claimed invention required resiliency. The court reversed the rejection holding the "suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate." 270 F.2d at 813, 123 USPQ at 352.).

Accord, Zyglo Corp. v. Wyko Corp., 79 F.3d 1563, 1569, 38 U.S.P.Q.2D (BNA) 1281 (Fed. Cir. 1996) (equivalence to redesign reversed, as principles of operation obviously not the same); *Uniroyal, Inc. v. Rudkin-Wiley Corp.*, 837 F.2d 1044, 1052, 5 U.S.P.Q.2D (BNA) 1434 (Fed. Cir. 1988) (invalidity reversed, as principles of operation antithetical).

Huang's principle of operation is to streamline the prediction of manufacturing demand, using data no more granular than customer-product tuples. Compare col. 109 (describing tuples) with cols. 68-71 (notes that system does not require demand data from individual stores). Because Huang has no interest in planning at the store or department-within-store level and no access to such granular data, the promotion calendar is directed to pricing promotions. In Haung, the promotion "type" is chosen from the group "R for Retailer, P for PCEC [manufacture]; C for Competitor". Col. 127. The only "Promotion Class" that is mentioned is "price reductions" (*id.*), which is not surprising for a manufacturer's system. The system is driven by forecasts from a variety

of sources (col. 18, Demand Management Frame), none of which involve simulation of sales. The manufacturer has no control over distribution of goods once the manufacturer delivers them to the customer's distribution center. Accordingly, Huang looks elsewhere than simulation for data sources appropriate to agile manufacturing.

Switching from forecasts to simulation would change Huang's principle of operation. Switching from receiving bulk customer forecast data to simulating daily sales at individual customer stores would further change Huang's principle of operation and deeply involve Huang's manufacturer in the customer's business, more like a franchisor than a manufacturer. Again, the MPEP and cited case law prohibit so much modification of a primary reference as a basis for a § 103 rejection. Without even considering whether Huang and Landvater might be combined, the law is that Huang is too far afield, has too different a principle of operation from what we claim for Huang to be used as a base reference for an obviousness rejection. Therefore, the rejection should be withdrawn.

Alternatively, there is no evidence of record that one of skill in the art would attempt to combine an agile manufacturing system with a retail planning system. Such a combination is counter-intuitive, because it crosses boundaries of data ownership and floods the manufacturer with detail that is unneeded and too expensive for the manufacturer to maintain. The manufacturer's agile manufacturing system uses information provided by customers. The manufacturer does not own or have access to the customer's internal systems, where the detailed information on which simulations are built resides. A person of ordinary skill starting with Huang would be starting with a manufacturer's system. Some technical features of Landvater might be of interest, but not features that would require access to data that the manufacturer does not own.

The details of Landvater to which the Examiner points would not be adopted or even considered by one of ordinary skill in the art, starting with Huang. Again from the manufacturer's perspective, which Huang adopts and teaches, the cost of acquiring and maintaining data regarding individual customer sales locations can be avoided without jeopardizing the accuracy of forecasts. There is no justification that the Examiner offers for taking on the data collection and maintenance costs that Huang teaches avoiding, even if that were a manufacturer's option, which it is not. Moreover, that level of detail would probably never be worth reporting to the users of the manufacturer's system –

they just do not care about distribution of inventory among the customer's outlets. Avoiding stock-outs at individual customer locations is the customer's job, not the manufacturer's concern.

In the end, the Examiner's purported motivation to combine dissimilar systems is out of touch with and ignores the realities of business, the realities of how one of ordinary skill in the art would be expected to behave. Therefore, the rejection should be withdrawn.

Even if the systems were combined, the result would not read on these claims. The features of Landvater that Huang might select would be controlled by Huang's motivations and expressed desire to avoid processing of store-level data. From Huang's perspective, bottom up means from customers to manufacturers, not from individual stores to manufacturers. Huang would not select simulation features. Huang would not devise a presentation calendar at an item-store level. Huang would not support a presentation demand type selector. The features that Huang might select would have more to do with delivery cycles and lead times, with analytical tools that might be adapted from retailing to manufacturing. The exact details of combining Huang and Landvater, using Huang as the primary reference, are not explained by the Examiner, so it is difficult for us to analyze the proposed combination in more detail. Still, it is easy to see that the proposed combination would not read on these claims.

Therefore, claim 126 should be allowable over Huang et al. in view of Landvater.

Claim 127

Claim 127 includes the limitations:

modeling with a schedule of display fixtures, which is a data structure stored in computer readable memory, fixtures and fixture capacities in the plurality of locations, the schedule of display fixtures including fixture identifiers for a plurality of fixture types and quantities of the fixtures present at particular selling locations;

associating particular presentation events with use of particular display fixture types to display particular items; and

deriving at least some of the presentation quantity requirements from the use of the particular display fixture types to display the particular items.

These limitations are not found in Huang et al. in view of Landvater, for the reasons given above regarding claim 126. In addition, the Examiner admits in the context of

claim 116 that Landaver does not read on these claim limitations. (FOA at 11-12). We respond below to the Examiner's claim 116 arguments.

Therefore, claims 126-127 should be allowable over Huang et al. in view of Landvater.

Applicants respectfully submit that claims 126-127 should be allowable over Huang et al. in view of Landvater.

Rejection Under 35 U.S.C. § 102(e) of Claims 121-124

The Examiner rejects **claims 121-124** under 35 U.S.C. § 102(e) as anticipated by Landvater (U.S. 6,609,101). We address these claims separately, as they now depend from claim 126. We expect the Examiner to recast the rejection from § 102(e) to § 103(a), but repeat the following previously presented but unanswered comments, in the interest of compact prosecution.

Claim 121

[#5] Claim 121 provides, "wherein the presentation demand type selected causes the presentation quantity used by the forecasting program to be the presentation quantity for the selling location on the first day of the predetermined selling period". Landvater, in contrast, uses the presentation quantity for each and every day of the predetermined selling period, not just the first day. Focusing on promotional goods (which Landvater treats differently, with a safety time), protecting the presentation demand on just the first day of the selling period would permit selling goods out of the presentation demand, out of the display. Following this approach, the display would become less attractive. For instance, by the time Christmas had passed, the inventory of Christmas tree lights would be closer to sold out than if the display had been fully stocked through December 26th. Landvater makes no hint at treating presentation demand in this way.

The Examiner's proposed "official notice" of how retailers plan for displays (FOA p. 10 "retailers, when planning for a display, plan inventory to fully maintain the display over its time period of use") teaches away from our claim 121, which calls for only protecting the display quantity on the first day of the predetermined selling period, not over its time period of use. Factual inconsistency is fatal to an "official notice" claim. If the "official notice" is accurate, claim 121 must be allowable.

Moreover, Landvater teaches away from using presentation demand logic during promotions, as explained above. It teaches using safety times. Therefore, claim 121 should be allowable over Landvater.

The Examiner labels our position regarding claim 121 as [5] in FOA at pp. 17 and 20-21, but professes that she is unclear about Applicants' position, instead of answering it. Part of the Examiner' expressed confusion (FOA p. 21) concerns how official notice regarding claim 120 relates to rejection of claim 121. Official notice can only be taken of things that are beyond dispute, constant and easily recognized. When the Examiner asserts that retailers behave in a certain way, the criteria for something that can be officially noticed requires that the retailers' behavior be consistent enough at least to apply to both claims 120 and 121. If Landvater teaches a different behavior than the Examiner asserts for "retailers" in general, the official notice is patently flawed.

As explained above, Landvater really looks at presentation demand on each and every day, not just the first day of a cycle. Landvater backtracks from the day analyzed to a delivery cycle, in order to meet the safety stock proxy for presentation demand. The use of daily forecasting is specifically taught in col. 10, lines 20-67, where Landvater touts a system that handles forecasting on a daily basis for approaching periods and on a weekly or monthly basis for more distant periods. If the Examiner disagrees, Applicants would appreciate a quote from the text that the Examiner considers to support her position, instead of reference to longer passages that are not quite on point. We just don't see support for the Examiner's arguments, even after carefully rereading the cited passages. Landvater does not anticipate claim 121, because Landvater considers every day of the cycle, not just the first day.

Therefore, claim 121 should be allowable over Landvater as a section 102(e) reference.

Claim 122

For claim 122, the claim provides, "wherein the presentation demand type selected causes the presentation quantity used by the forecasting program to be the presentation quantity on the day of the predetermined selling period when the good is received at the selling location". One of skill in the art, reading the specification, would understand that the application uses presentation demand in conjunction with promotional activities, which may be advertising, price or prominent display promotions.

Landvater rules out using presentation demand from promotions, especially column 18, lines 32-51, which teaches very specifically that safety time (which does not involve safety stock) is better than safety stock (which takes into account presentation demand) for promotions. See, also, 5:42-46. Therefore, claim 122 should be allowable over Landvater as a section 102(e) reference.

Claim 123

For claim 123, the claim provides, "wherein the presentation demand type selected causes the presentation quantity used by the forecasting program to be the largest presentation quantity associated with the good at the selling location for any day of the predetermined selling period". Landvater's use of safety stock (col. 14) and daily analysis (col. 15) does not allow protecting the highest presentation quantity during a predetermined selling period, as distinct from the presentation quantity on any particular day. The logic for increasing the safety time for an initial distribution during a promotion is a different approach than using the highest presentation demand during a predetermined period. From the Examiner's emphasis of col. 19, lines 5-17, it is clear to us that the Examiner is confusing safety time with safety stock, neither of which are quite the claimed presentation demand. Therefore, claim 123 should be allowable over Landvater as a section 102(e) reference.

Claim 120 and 125

We note that claims 120 and 125 could be treated similarly, but the Examiner has argued those claims under section 103(a) instead of 102(e), so we address them below.

Rejection Under 35 U.S.C. § 103(a) of Claims 2-3, 8-9, 120 and 125

The Examiner rejects **claims 2-3, 8-9, 120 and 125** under 35 U.S.C. § 103(a) as unpatentable over Landvater (U.S. 6,609,101).

Claims 2 and 3

Claim 2 includes the limitations:

wherein the start date and the stop date are implicitly associated with a memory location in which the presentation quantity is stored

Claim 3 depends from claim 2.

This position in our prior response was ignored on the basis of waiver. FOA p.18, line 2 and p. 23. The waiver position was based on the Examiner's inaccurate summary.

The limitations of claim 2 admittedly are not found in Landvater. The passages cited by the Examiner include clear reference to explicitly including at least the start date in the shelf configuration database:

Database 36 preferably stores the following shelf configuration information: the number of facings (product facing the consumer), the minimum number of rows deep required to create an attractive display, the maximum number of rows allocated to this product, the amount of back room safety stock (safety stock maintained in a location other than the store shelf), and the date this configuration becomes effective.

Col. 14, lines 37-45. Clear reference in Landvater to explicitly associating the start date and the presentation quantity teaches away from this claim.

[#4] The Examiner counters that storing start and stop dates, whether explicitly or implicitly, would be obvious. This begs the question of whether implicitly storing a start date would be obvious from Landvater's teachings. Our position has been that Landvater teaches away from implicitly storing a start date. The cited passages from column 14, lines 25-35 and 55-65 give no hint or suggestion to implicitly store starting dates for a presentation quantity. The Examiner needs to offer more than just her opinion – a declaration or documentary evidence for instance (MPEP § 2144.03) – to overcome Landvater's teaching away.

In the newly added argument [#7], the Examiner proposes to ignore the positions stated above on the basis of waiver. FOA p. 23. The Examiner argues that she took official notice of some fact in the office action of February 15, 2006. The February 15th office action does not use the term "official notice" and particularly not in the context of claims 2-3. No official notice has ever been asserted by the Examiner regarding claims 2-3, so there is no waiver and no reason that the position asserted above should not have received a response.

Therefore, claims 2 and 3 should be allowable over Landvater.

Claims 8 and 9

Claims 8 and 9 should be allowable over Landvater for at least the same reason as the claims from which they depend.

Claims 120 and 125

Claims 120 and 125, which now depend from claim 126, include the limitations:

wherein the presentation demand type selected causes the presentation quantity used by the forecasting program to be the average presentation

quantity for the location during the predetermined selling period.

wherein the presentation demand type selected causes the presentation quantity used by the forecasting program to be the presentation quantity for the selling location on the last day of the predetermined selling period.

The Examiner acknowledges that Landvater does not read on these limitations. FOA at 10. On page 10, the Examiner asserts, "Landvater discloses using average demands to plan for inventory." But no supporting citation is given and the Examiner is mistaken, as Landvater tests whether a shipment should be triggered every day, using a calculation specific to that day (either a safety time or safety stock calculation.) Cols. 14-15.

[#4.1] As to claim 120, the Examiner proposes to take official notice that "retailers, when planning for a display, plan inventory to fully maintain the display over its [sic] time period of use." This is an improper use of "official notice," in part, because it is not true. For instance, one would hope for Christmas displays goods to dwindle and not to be fully maintained as Christmas Eve approaches, because Christmas seasonal goods are supposed to be nearly sold out by December 25th. Even if the Examiner's notion of retailers' behavior were true, it would not make it obvious to use the average presentation quantity for a predetermined period as the quantity to protect, when Landvater teaches using the exact number for each day, when simulating day by day. Only the specification of this application explains why. Therefore, claim 120 should be allowable over Landvater.

The Examiner's newly added argument [#7] says that the Examiner will rely on documentary evidence to support the purported official notice. FOA p. 23. The Examiner cites four new references to respond to Applicant's position. The Examiner asserts official notice that retailers plan to fully maintain a display over its time period of use, "referring to this time during the selling period." We take it that the purported official notice has something to do with presentation quantities, as that is the subject of this application.

Roden U.S. Pat. No. 6,249,774 does not apply to presentation quantities. It discusses direct deliveries to customers, as a delivery driver for a bakery puts bread on the supermarket's shelves. The mention of avoiding an out of stock condition at col. 3, lines 53-56, has nothing to do with presentation quantities or the proposed official notice. See also, col. 8, lines 30-50 (meeting demand).

Kimbrow U.S. Pat. No. 4,737,910 describes a pair of LCD displays mounted on a shelf to indicate how many items are on the shelf and how many have been removed since the last stocking. *See, generally*, col. 2. This was a silly and unworkable idea that we haven't seen implemented since the patent was granted in 1988. It has nothing to do with presentation quantities or the proposed official notice.

The TSI reference, which the Examiner previously abandoned citing, has been rechristened "Koloszich" in this office action. It is neither enabling nor descriptive of presentation quantities or the proposed official notice. It is hype regarding a contract that TSI had secured to do some development work.

Lucas U.S. Pat. No. 6,996,538 col. 23 again has nothing to do with presentation quantities. In an inventory system, Lucas keeps track of a date after which further orders cannot be placed. This has nothing to do with presentation quantities or the proposed official notice.

In total, the four items of documentary evidence with which the Examiner proposes to support the "official notice" are irrelevant to this disclosure regarding presentation quantities. The lack of any support in the four documents for any facts related to presentation quantities is a strong basis for withdrawal of the purported official notice and the rejections premised on official notice.

[#4.2] As to claim 125, the Examiner again proposes to take official notice. The official notice is combined with an obviousness argument, nearly amounting to an argument that any possible way of calculating inventory would be obvious. The official notice and argument stretch too far. The official notice proposes that planning inventory for every day of the year is old and well known, but this is specifically contradicted by Landvater. Landvater explains that planning for every day of the year for every retail product is impractical. *See*, cols. 2-3 ("has not been achieved in actual practice ... numerous technical hurdles to overcome") and cols. 23-24. Even Landvater proposes handling many calculations on a weekly basis, instead of a daily basis. Cols. 23-24. It is not allowable for the Examiner to contradict the primary reference by declaring "official notice." As discussed above, none of the four newly cited references support "official notice" related to presentation quantities. MPEP § 2144.03.

Applicants respectfully submit that the single reference § 103(a) rejections should be withdrawn.

Rejection Under 35 U.S.C. § 103(a) of Claim 116

The Examiner rejects **claim 116** under 35 U.S.C. §103(a) as being unpatentable over Landvater (US 6,609,101), in view of the RDG ad, by a division of Display Unlimited (www.displayunlimited.com).

Claim 116 includes limitations that are reproduced below.

The Examiner's form of argument regarding this claim, like her argument regarding claim 126, is first to assert that every limitation of the claim is met by Landvater (FOA at 11-12), then to contradict herself by admitting at least some of what Landvater lacks. (FOA at 12) Reading the Examiner's remarks at 11-12, one might miss how the brief admission of what is lacking from Landvater undermines the detailed assertion that virtually everything appears there. The reproduction below uses double strike through to indicate what the Examiner acknowledges is missing from Landvater:

a schedule of display fixtures including fixture identifiers for a plurality of fixture types and quantities of the fixtures present at particular selling locations; and

one or more PQ tables, the PQ tables associating with a plurality of good-selling location pairs, data including the fixture identifier, the good identifier, the selling location identifier, and the one or more presentation quantities each associated with the start and stop dates

Then, does the RDG ad lead one of ordinary skill in the art to improve Landvater as claimed, without using this claim as a roadmap or blueprint? In the following section, we explain why the RDG ad cannot be used as a reference under § 103(a), and why it is unusable as evidence of the level of ordinary skill in the art. We will conclude that it deserves no evidentiary weight at all.

RDG ad Does not Qualify as a 102(b) Reference that Can be Combined with Landvater Under § 103(a)

The RDG ad does not qualify as a reference that can be applied in a combination under § 103(a) because it does not disclose technology and does not provide an enabling disclosure of any claimed feature.

The RDG ad does not have any of the attributes of technology, patentable or not. For instance, it does not identify a practical application of a method or computerized device related to the company's purported consulting talent. It does not teach any element of claim 116 and does not teach any of the elements that are stricken through as missing from Landvater.

The RDG ad does not satisfy the enablement requirement for a reference. It is black letter law that “[r]eferences relied upon to support a rejection under 35 U.S.C. 103 must provide an enabling disclosure, i.e., they must place the claimed invention in the possession of the public ...” *In re Payne*, 606 F.2d 303, 314-15, 203 USPQ 245 (CCPA 1979) *citing*, *In re Brown*, 329 F.2d 1006, 141 USPQ 245 (CCPA 1964) (rejection reversed); *see, In re Sheppard*, 339 F.2d 238, 52 C.C.P.A. 859, 1964 CCPA LEXIS 263, 1965 Dec. Comm'r Pat. 107, 144 U.S.P.Q. (BNA) 42 (C.C.P.A. 1964) (rejection reversed); *In re LeGrice*, 301 F.2d 929, 49 C.C.P.A. 1124, 1962 CCPA LEXIS 278, 1962 Dec. Comm'r Pat. 707, 133 U.S.P.Q. (BNA) 365 (C.C.P.A. 1962) (rejection reversed); 1-3 Chisum on Patents § 3.04 [1][b][v] to [1][c].

The Examiner concedes in the related 09/755,653 application, “Thus, RDG ad was not relied on to teach designing an inventory program.” Office Action, p. 11 (mailed April 27, 2007).

Accordingly, the RDG ad is not a reference that could be used in a § 103(a) combination. Next, we explain why it is not even evidence related to one of the *Graham v. John Deere* factor.

The RDG ad is Irrelevant to the Graham Analysis of Non-Obviousness and not Usable as Evidence

Having established that RDG ad is not a reference that supplies an enabling disclosure any claimed element, in this section we demonstrate that RDG ad is not evidence of anything, that it is irrelevant and may not legally be considered for any purpose. The level of ordinary skill in the art is an issue that the Examiner has not addressed. We direct the Examiner's attention to *Ex parte Jud*, Appeal No. 2006-1061 (Jan. 30, 2007) (expanded panel, informational opinion), for the legal framework in which we analyze the lack of relevance of the RDG ad. In *Ex parte Jud*, at 2-3, the Board reiterated the *Graham* factors for nonobviousness analysis, which include the level of ordinary skill in the art.:

The Supreme Court has elaborated that:

Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the **level of ordinary skill in the pertinent art** resolved. Against this background, the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized

to give light to the circumstances surrounding the origin of the subject matter sought to be patented. *Graham v. John Deere Co.*, 383 U.S. 1, 17-1 8 (1966). These four determinations have come to be known as the Graham factors.

Following this analysis, Landvater is the prior art and the claim with strike throughs ascertains differences between the prior art and claim 116. That leaves the level of ordinary skill in the art as an issue to which RDG ad might be relevant.

The Board discussed the value that it finds in three categories of evidence of the level of ordinary skill: the application itself, publications and testimony. The Board looked to the applicants' disclosure for its level of detail. Regarding the application, at 4:

The disclosure is particularly helpful when it describes the background to the invention and the applicant's contribution to the art. Care must be exercised, however, to ensure that the applicant's contribution is not itself mistaken as an admission regarding the pre-existing knowledge and skill in the art.

The Board goes on to comment that what the applicants disclosed in order to enable their new technology helps to determine the level of ordinary skill in the art. *Id.* at 4-5. An enabling disclosure gives a sense of how much teaching it takes for one of ordinary skill in the art to understand and practice the new technology, establishing at least a floor on the level of skill in the art. Accordingly, a short disclosure suggests an easily understood improvement; a long disclosure suggests a new development that must be carefully explained to be understood by one of ordinary skill.

The second category is documentary evidence or references, at 5.

References are typically indirect in their teachings regarding the skill level in the art. Moreover, the teachings may sometimes be incomplete since explaining the skill level in the art is rarely the intended purpose of a reference. References are generally entitled to great weight, however, because they are almost always prepared without regard to their use as evidence in the particular examination in which they are used.

Judges and trial lawyers similarly emphasize the value of documents prepared for reasons unrelated to the issues being decided.

The least helpful category of evidence is testimony about the education level and work experience of an artisan. *Id.* at 5-6.

In this case, the Applicants' disclosure is 36 pages plus figures. The level of technical detail disclosed includes formulas for calculating stockouts, order quantities, allocation quantities and the like. This level of detail is not found in the RDG ad.

The primary reference, Landvater includes 32 published columns plus 25 pages of figures. As an enabling disclosure, it presents detailed how calculations in a level of detail similar to our application, *albeit* a much different set of calculations than applicants disclose.

The level of ordinary skill in the art, from the application and primary reference, is such that detailed descriptions of calculations appear to be warranted, in order to convey a new approach to inventory management software.

RDG ad is irrelevant to determining the level of ordinary skill in the art and cannot be given any evidentiary weight. It does not provide even an indirect teaching regarding the level of ordinary skill in the art (*In re Jud*), as it admittedly is not offered for any teaching related to designing an inventory program. (OA at 11) It cannot be reconciled with the consistent indications in this application and in the primary reference that a detailed teaching is appropriate to the applicable level of ordinary skill.

While we have never before approached removing a publication as a reference in this way, we expect that all judges would agree that RDG ad is irrelevant and to be excluded from consideration or given no weight as evidence on the *Graham* factors.

The Standard for a Single Reference § 103(a) Rejection is Rigorous

For a section 103 rejection based on a single reference, the Examiner needs to provide evidence or a detailed rationale, including discussion of the level of skill in the art, in support of extending the reference to include the claimed features that admittedly are not part of the reference. It is fundamental, as indicated in MPEP § 2143.01, that the Examiner satisfy the Administrative Procedure Act (APA) with the rationale for modifying Landvater. In the case *In re Lee*, the Federal Circuit applied the APA and required evidentiary quality support of an Examiner's factual basis (as opposed to the Examiner's opinion) for an obviousness rejection:

As applied to the determination of patentability *vel non* when the issue is obviousness, "it is fundamental that rejections under 35 U.S.C. § 103 must be based on evidence comprehended by the language of that section." *In re Grasselli*, 713 F.2d 731, 739, 218 U.S.P.Q. (BNA) 769, 775 (Fed. Cir. 1983). ... "The factual inquiry whether to combine references must be thorough and searching." *Id.* It must be based on objective evidence of record. This precedent has been reinforced in myriad decisions, and cannot be dispensed with. [citation omitted] The need for specificity pervades this authority. See, e.g., *In re Kotzab*, 217 F.3d 1365, 1371, 55 U.S.P.Q.2D (BNA) 1313, 1317 (Fed. Cir. 2000) ("particular findings must be made as to the reason the

skilled artisan, with no knowledge of the claimed invention, would have selected these components for combination in the manner claimed"); *In re Rouffet*, 149 F.3d 1350, 1359, 47 U.S.P.Q.2D (BNA) 1453, 1459 (Fed. Cir. 1998) ("even when the level of skill in the art is high, the Board must identify specifically the principle, known to one of ordinary skill, that suggests the claimed combination. In other words, the Board must explain the reasons one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious."); *In re Fritch*, 972 F.2d 1260, 1265, 23U.S.P.Q.2D (BNA) 1780, 1783 (Fed. Cir. 1992) (the examiner can satisfy the burden of showing obviousness of the combination "only by showing some objective teaching in the prior art or that knowledge generally available to one of ordinary skill in the art would lead that individual to combine the relevant teachings of the references"). ... In its decision on Lee's patent application, the Board rejected the need for "any specific hint or suggestion in a particular reference" to support the combination of the Nortrup and Thunderchopper references. Omission of a relevant factor required by precedent is both legal error and arbitrary agency action.

In re Lee, 277 F.3d 1338, 1343-44, 61 U.S.P.Q.2D (BNA) 1430, 1433-34 (Fed. Cir. 2002).

The outcome of cases decided even before *In re Lee* makes it clear that real evidence is required to support modifying a single reference as a basis for obviousness rejection. See, e.g., *In re Kotzab*, 217 F.3d 1365, 1369-70 (Fed. Cir. 2000) (rev'd finding of obviousness, no explicit or implicit showing, as "Even when obviousness is based on a single prior art reference, there must be a showing of a suggestion or motivation to modify the teachings of that reference."); *Kolmes v. World Fibers Corp.*, 107 F.3d 1534, 1541 (Fed. Cir. 1997) (aff'd patent not invalid, as no basis for modifying the '989 patent reference with regard to non-metallic fibers).

Landvater Does not Support a Single Reference Rejection under § 103(a)

The table below illustrates Landvater's teaching and examples of how to calculate safety stock requirements, in order to assure an attractive presentation:

	Facing	Min Rows	Req'd	Max Rows	Extras	Backroom
Shelf	3	1	3	6	15	0
Floor	1	1	1	1	0	1

The first example is from column 14, lines 45-51, under the heading "Safety Stock". Landvater does not identify a particular product in this example, but indicates three

facings and a minimum of one row deep for an attractive display, requiring three units of product. The maximum number of rows deep is 6, permitting storage of 18 units. (3 required +15 extras = 18 stored) "No additional units should be kept as safety stock in addition to the quantity on the shelf." The other example is from column 14, lines 51-58. One mattress is kept on the display floor and another is in the back room, available for purchase, without selling the floor model.

It is clear from col. 14, line 59 – col. 15, line 16 that Landvater applies the same calculation to the "shelf configuration" arrays represented above, regardless of whether they capture a shelf with multiple facings and rows or a floor model with a single facing. The shelf array depicted above is what one of ordinary skill in the art would understand from Landvater's teachings.

Landvater's shelf configuration array does not anticipate or render obvious the display fixture data structures disclosed or claimed. The Examiner agrees that the claimed structures are not anticipated. Applicants' figures depict various data structures, including a list of display fixture setups, a list of named display fixture setups at particular selling locations, and assignments of products to particular named display fixture setups. One simplified illustration of data structures that could be used to implement claim 116, in a relational table format, might be:

Display fixture type	Capacity

Selling Location	Display Fixture Type	Named Instance

Selling Location	Item	Display Fixture Type - Named Instance

This is a much different approach to presentation displays than Landvater's shelf configuration arrays. It does not take any skill in programming to recognize the difference between a shelf configuration array and multiple interrelated tables.

The sophisticated approach of this application is particularly helpful to retail chains, such as The Body Shop, that use the same fixtures in outlets that have a variety of floor plans. On page 10 of the application, we explained:

One way of associating presentation quantities with a good at a selling location is to create a unique name for a particular fixture, promotional display point or other mode of presentation. A set of named fixtures are then associated with each selling location. When the layout of a selling location changes, different named fixture can be associated with the location. Fixture setups are associated with the fixtures for particular goods and periods of time. The named fixture setups can be assigned specific quantities (capacities) of goods per fixture setup or fixtures can be assigned different good quantities per fixture for different periods of time. The end result is that the system takes into account the capacities of named fixtures and the number of named fixtures at each selling location when it calculates presentation quantities. For good selling location pairs, one or more of the available setups at the selling location can be allocated to the good. In this approach, the system can calculate the presentation quantity from assignment of goods to particular setups in particular fixtures.

This disclosure teaches something very useful to retail chains. *Applic.* at 3, lines 7-8. The Examiner undoubtedly has visited malls where familiar stores appear in a variety of layouts – think of how may sizes and shapes of Starbucks coffee shops there are. Named display fixtures used in different locations for different floor plans is a feature that Landvater does not suggest or have any way to implement in shelf configuration arrays.

Landvater has a different function, works in a different way and produces a different result. Our function accommodates different floor plans in a retail chain; Landvater is limited to inventory for a particular configuration of facings, rows behind facings and backroom stock, without generalization across stores. Our way abstracts the display strategy by using multiple data structures that are interrelated; Landvater uses a shelf configuration array that has a physical analog in a single store. Our result is that a retailing plan can be applied to multiple locations that have different floor plans; Landvater works on one set of shelf configurations in one location at time.

The wide difference between Landvater and our disclosure and/or claims cannot be bridged by stressing the word "configuration" in the noun phrase "shelf configuration" that appears in col. 14 (FOA at 11). The phrase "shelf configuration" does not render obvious the abstraction layer that we teach and claim.

[#6E] It is Applicant's position that it was not obvious in 1999 or 2001 that introducing another layer of abstraction would lead to the data entry efficiencies that users of Bluefire's software have realized. Adding display fixture types as an intermediate layer created extra work to set up the display fixture types, inventory the stores for fixtures and use the fixtures for presentation demand analysis. This extra work would discourage users from requesting such a feature and would discourage analysts from proposing such a feature. The extra work required to set up and use a display fixture abstraction layer makes it nonobvious.

For all of these reasons, claim 116 should be allowed of the art of record.

CONCLUSION

Applicants respectfully submit that the pending claims are now in condition for allowance and thereby solicit acceptance of the claims as now stated.

Applicants would welcome an interview, if the Examiner is so inclined. The undersigned can ordinarily be reached at his office at (650) 712-0340 from 8:30 a.m. to 5:30 p.m. PST, Monday through Friday, and can be reached at his cell phone at (415) 902-6112 most other times.

Fee Authorization. The Commissioner is hereby authorized to charge underpayment of any additional fees or credit any overpayment associated with this communication to Deposit Account No. 50-0869 (BLFR 1005-1).

Respectfully submitted,

Dated: August 3, 2007

/Ernest J. Beffel, Jr./

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